

## CLAIMS

What is claimed is:

1. A vehicle brake system comprising:
  - a master cylinder having a housing defining a bore, said master cylinder further including a boost piston and a primary piston slidably disposed in said bore, said master cylinder having a boost chamber defined at least in part by said boost piston and said housing;
  - a source of pressurized fluid;
  - a boost valve operable to supply fluid from said source of pressurized fluid to said boost chamber for advancing said boost piston and said primary piston in said master cylinder.
2. The brake system of Claim 1, wherein said boost valve is housed in said boost piston.
3. The brake system of Claim 1 including a switchable travel rate feature.
4. The brake system of Claim 1 including a pressure regulator valve for providing a limiting controlled pressure level from a source of high pressure fluid to said boost valve.
5. The brake system of Claim 1 including a jump-in feature.
6. The brake system of Claim 1, wherein said master cylinder is operable to supply brake actuating pressure to first and second brake circuits.
7. The brake system of Claim 6 including a fluid separator valve connected between said first and second brake circuits.

8. The brake system of Claim 7 including a hold off valve in one of said first and second brake circuits for assisting in equalizing said pressure between said first and second brake circuits.

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9. The brake system of Claim 7 including valves for controlling an ABS function to at least one of the vehicle wheel brakes.

10. The brake system of Claim 9 including a fail safe dump valve connected between the wheel brakes and a master cylinder reservoir.

11. The brake system of Claim 1, including a pre-charge feature for providing fluid flow to an inlet of a pump.